📘 React Conditional Rendering — Revision Notes

🔁 What is Conditional Rendering?

> React me "Conditional Rendering" ka matlab hota hai:
>
> **State ke basis par** different component ya JSX output dikhana.

Matlab agar user login hai to kuch aur dikhana, agar nahi to kuch aur — bilkul jaise HTML me `if` / `else` lagate ho, waise hi yahan bhi component condition ke according render hote hain.

✅ Code Setup (As in your file):

```
import { useState } from 'react'
import './App.css'
import Login_button from './components/login_button';
import Logout_button from './components/logout_button'

function App() {
  const [isLoggedin, Loggedin_status] = useState(true);

  // method1
  // if (isLoggedin == true) {
  //   return <Login_button />;
  // }
  // else {
  //   return <Logout_button />;
  // }

  // method2
```

```
  // return isLoggedin ? <Logout_button /> : <Login_button />;

  // method 3
  // return <div>{isLoggedin && <Logout_button />}</div>;
}


export default App
```

🔷 Method 1: If-Else Statement (Traditional JavaScript Style)

💡 Use When:

> Condition zyada complex hai ya multiple return blocks handle
> karne ho.

```
if (isLoggedin == true) {
  return <Login_button />;
} else {
  return <Logout_button />;
}
```

📌 Explanation:

- Agar `isLoggedin` true hai → `<Login_button />` render hoga.
- Warna → `<Logout_button />` render hoga.
- Yeh traditional JavaScript `if-else` jaise hi kaam karta hai, bas JSX return ho raha hai.

🔷 Method 2: Ternary Operator (Short Conditional Expression)

💡 **Use When:**

> Simple true/false ke basis par 2 cheeze show karni ho, ek hi line me.

```
return isLoggedin ? <Logout_button /> : <Login_button />;
```

📌 **Explanation:**

- `?` ke left me jo condition hai: agar true hui → left wala `<Logout_button />`
- `:` ke baad wala false case → `<Login_button />`
- Compact and clean one-liner conditional rendering

🔷 **Method 3: Logical AND (`&&`) Operator**

💡 **Use When:**

> Sirf ek hi condition true hone par render karna ho (false case me kuch bhi render nahi karna).

```
return <div>{isLoggedin && <Logout_button />}</div>;
```

📌 **Explanation:**

- Agar `isLoggedin` true hai → `<Logout_button />` render hoga.
- Agar false hai → `false` return hoga, jo ki React me render nahi hota (blank dikhega).
- Sirf **true case** me render karna ho to best hai.

🧠 **Summary Table**

Method	Use Case	Syntax Style	Good For

if-else	Complex conditions	Block-style	Beginners, clarity
ternary	Two simple outcomes	Inline	Compact logic
&&	Show something only if true	Short + simple	True-only rendering

🎯 Final Tip:

> Conditional rendering is a core concept in React, jo har interactive UI banate waqt kaam aata hai —
>
> Tu chahe `if` , `ternary` , ya `&&` use kare, sab ek hi concept ke forms hain:
>
> "**State ke basis par component render karna**".

Bhai isko tu directly **Notion me paste** karega to:

- ✅ Proper formatting
- ✅ Color-coded blocks
- ✅ Fast revision material